

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for forecasting availability of a resource for a work assignment, comprising:

selecting a forecast horizon;

determining for a first segment of a first task a first probability related to an availability of at least a first resource within said forecast horizon, wherein said first resource comprises a first agent;

determining for a second segment of said first task a second probability related to said availability of said at least a first resource within said forecast horizon, wherein said first and second probabilities are different from one another;

combining said determined first probability and said determined second probability;

normalizing a result of said combining said determined first and second probabilities to obtain a probability of agent availability within said selected forecast horizon; and

applying said obtained probability of agent availability to assign work to a resource having a probability of agent availability that is within said selected forecast horizon, wherein said method comprises the execution of program instructions, wherein said program instructions are recorded in a computer readable storage medium.

2. (Currently Amended) The method of Claim 1, ~~wherein said first resource comprises a first agent,~~ wherein said first probability comprises a probability that said first agent will complete a talk state within said selected horizon, said first probability derived from a time said agent has been in said talk state and a probability distribution for agent time in said talk state,

and wherein said second probability comprises a probability that said first agent will complete a wrap-up state within said selected time horizon, said second probability derived from a probability distribution for agent time in said wrap-up state.

3. (Previously Presented) The method of Claim 2, wherein said first probability is determined for an actual time said at least said first agent has been in said talk state, and wherein said second probability is determined for zero time in said wrap-up state.

4. (Previously Presented) The method of Claim 1, wherein said first probability comprises a combination of a probability that said first agent will complete a talk state within said selected forecast horizon and a probability that said first agent will complete a wrap-up state within said selected forecast horizon, and wherein said second probability comprises a probability that said ~~at least a~~ first agent will complete a total handle time state within said selected forecast horizon.

5. (Original) The method of Claim 1, wherein said combining comprises adding said first and second probabilities.

6. (Original) The method of Claim 1, wherein said combining comprises calculating a product of said determined first probability and said determined second probability, and wherein said normalizing comprises dividing said product by two.

7. (Original) The method of Claim 2, further comprising:
computing a third probability, said third probability comprising a probability that said first agent will arrive within said selected horizon, said probability derived from a time said agent has already spent handling said task and a probability distribution for total agent handle time, wherein said third probability comprises a second forecast;

computing a first variance in agent time in talk state;

computing a second variance in agent time in wrap-up state;

computing a third variance in total agent handle time; and

computing a first ratio, said first ratio comprising a ratio of the third variance to the sum of the first, second and third variances, wherein a measure of the predictability of using talk and wrap-up time statistics relative to using total handle time statistics is obtained.

8. (Original) The method of Claim 7, further comprising:
determining an a priori probability of completion of said talk state before an amount of time equal to an amount of time said first agent has been in said talk state has elapsed;
computing a product of said a priori probability and said first ratio to obtain a first

weight;

computing a product of said first weight and said first forecast to obtain a first weighted forecast;

subtracting said first weight from one to obtain a second weight;

computing a product of said second weight and said second forecast to obtain a second weighted forecast; and

computing a composite forecast by computing a sum of said first weighted forecast and said second weighted forecast.

9. (Original) The method of Claim 1, wherein a probability of arrival is calculated for a plurality of resources.

10. (Original) The method of Claim 9, wherein said probabilities of arrival for each of said plurality of resources are combined to obtain said first forecast.

11. (Original) The method of Claim 1, wherein said selected forecast horizon comprises a forecast time until an outbound call is completed to a live person.

12. (Original) The method of Claim 1, further comprising using said first forecast to determine whether or not to place an outgoing call.

13. (Canceled.)

14. (Previously Presented) The method of Claim 1, wherein said method is performed by operation of a logic circuit.

15. (Previously Presented) A method for forecasting arrivals of agents, comprising:

selecting a forecast horizon;

forecasting using an automatic call distributor the number of agents associated with the automatic call distributor that are available within said selected horizon, said forecasting

including:

determining a probability of completion of talk state within the forecast horizon for each of a plurality of agents;

determining a probability of completion of wrap-up state within the forecast horizon for each of said plurality of agents assuming each is at the start of wrap-up;

for each of said plurality of agents, combining said determined probability of completion of talk state and said determined probability of completion of wrap-up state to obtain an agent arrival probability for each of said plurality of agents within said forecast horizon;

combining said agent arrival probabilities for each of said plurality of agents to obtain a first forecast; and

initiating an outbound call when said first forecast indicates an excess supply of agents.

16. (Original) The method of Claim 15, wherein said combining said agent arrival probabilities for each of said plurality of agents to obtain a first forecast comprises:

aggregating a supply of agents as a sum of probabilities of arrival of each individual agent included in said supply of agents.

17. (Canceled.)

18. (Original) The method of Claim 15, wherein said forecast horizon is selected from one of a time corresponding to said predicted time to a live disposition on outbound calls, an amount of time an agent is predicted to be occupied by work having a lower priority than a priority of work comprising servicing an outbound call, and an amount of time required to recall an agent from lower priority work to work comprising servicing an outbound call.

19. (Original) The method of Claim 14, wherein said first forecast is provided as an input to a predictive dialer.

20. (Previously Presented) A work distribution system, comprising:
means for predicting a time to a next work item requiring an agent;
means for accessing a first agent work segment statistic;
means for accessing a second agent work segment statistic;
means for determining a first probability of completing said first agent work segment within said predicted time at an elapsed time in said first work segment by applying at least said first agent work segment statistic;
means for determining a second probability of completing said second agent work segment within said predicted time at zero elapsed time in said second work segment by applying at least said second agent work segment statistic;
means for combining said first and second probabilities to obtain an agent arrival probability within said predicted time; and
means for placing outbound calls, wherein said agent arrival probability is provided as an input to said means for placing outbound calls.

21. (Original) The system of Claim 20, further comprising means for combining agent arrival probabilities for each of a plurality of agents to obtain said agent arrival probability within said predicted time.

22. (Original) The system of Claim 20, further comprising:
means for accessing a third agent work segment statistic, said third agent work segment spanning said first and second work segments; and
means for determining a third probability of completing said third agent work segment within said predicted time at an elapsed time in said third work segment, wherein said means for combining comprises means for combining said first, second and third probabilities to obtain an agent arrival probability within said predicted time.

23. (Canceled.)